

## REMARKS

Each rejection raised by the Examiner is addressed separately below. In view of the claim amendments noted above and the remarks below, Applicants respectfully request reconsideration of the merits of this patent application.

### *In the Claims*

Claims 1, 11 and 12 have been amended herein. Claims 2, 9, 10 and 13-15 have been withdrawn. Claims 1, 3-8, 11-12 and 16-17 are currently under examination. Support for the amendments can be found in the specification as filed. No new matter has been added.

### *Rejections under §112-Enablement*

The Examiner has rejected claims 11 and 12 as lacking enablement. Specifically, the Examiner alleges that claims 11 and 12 do not reasonably provide enablement for a method of evaluating the effect of a test compound on diabetes by exposing the test compound to a T2DN rat obtained by a cross between a Fawn Hooded rat and a GK rat. However, the Examiner concedes that the specification is enabling for a method of evaluating the effect of a test compound on diabetes by exposing the test compound to a T2DN rat obtained by introducing the mitochondrial genome and loci on chromosomes 2 (D2Rat12), 11 (D11Rat93), 16 (D16Rat15) and 19 (D19Rat59), X (DXMit4) and DXMit42 of a Fawn Hooded rat into a GK rat. Without agreeing to the Examiner's characterization and solely to move this application towards allowance, Applicants have amended claims 1, 11 and 12 to recite a T2DN rat obtained by introducing the mitochondrial genome and loci on chromosomes 2 (D2Rat12), 11 (D11Rat93), 16 (D16Rat15) and 19 (D19Rat59), X (DXMit4) and DXMit42 of a Fawn Hooded rat into a GK rat. Support for this amendment can be found in the application as filed at paragraph [0070] of the published application.

Claims 1, 11 and 12 have also been amended to recite a T2DN rat obtained by introducing the mitochondrial genome and loci on chromosomes 2 (D2Rat12), 11 (D11Rat93), 16 (D16Rat15) and 19 (D19Rat59), X (DXMit4) and DXMit42 of a Fawn Hooded rat into a GK rat, and differences between the T2DN rat and the GK rat at markers D3Rat57, 11 (D11Mgh5), 12 (D12Rat22), D1Rat291, D1Mit18, D1Mit34, D1Mgh12 and D1Rat185. Support for this amendment can be found in the application as filed at paragraph [0088] of the published application. The eight genetic differences between the T2DN rat and the GK rat now recited in claims 1, 11 and 12 act to further identify the rat obtained according to the rat model of the present invention. In this manner, Applicants submit that the claims are clearly enabled in view of the specification.

Accordingly, Applicants respectfully submit that this rejection has been overcome, and withdrawal of same is requested.

*Summary*

Having addressed each issue raised by the Examiner, claims 1, 3-8, 11-12 and 16-17 as amended are believed to be in condition for allowance and a Notice of Allowance is respectfully requested. Should any issues remain outstanding, the Examiner is invited to contact the undersigned at the telephone number appearing below if such would advance the prosecution of this application.

A One-Month Extension of Time is enclosed herewith. No additional fees or extensions of time are believed to be due in this response. However, if any such fees or petitions are due, please charge the fee to the same Deposit Account No. 17-0055 and please consider this to be a petition for the appropriate extension and a request to charge the petition fee to Deposit Account No. 17-0055.

Respectfully submitted,

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Ann E. Rabe, Reg. No. 56,697  
Attorney for Applicants  
QUARLES & BRADY LLP  
411 East Wisconsin Avenue  
Milwaukee, WI 53202-4497  
TEL (414) 277-5613  
FAX (414) 978-8712